

PENNSTATE



ARL

Applied Research Laboratory
The Pennsylvania State University

Including OSA-CBM and OSA-EAI in Integrated System Health Monitoring (ISHM)

PRESENTED TO:
CBM+ Action Group

12 September 2007

PRESENTED BY:
Bob Walter
Head, Applied Enterprise Systems Department
814-863-8876
RLW9@psu.edu

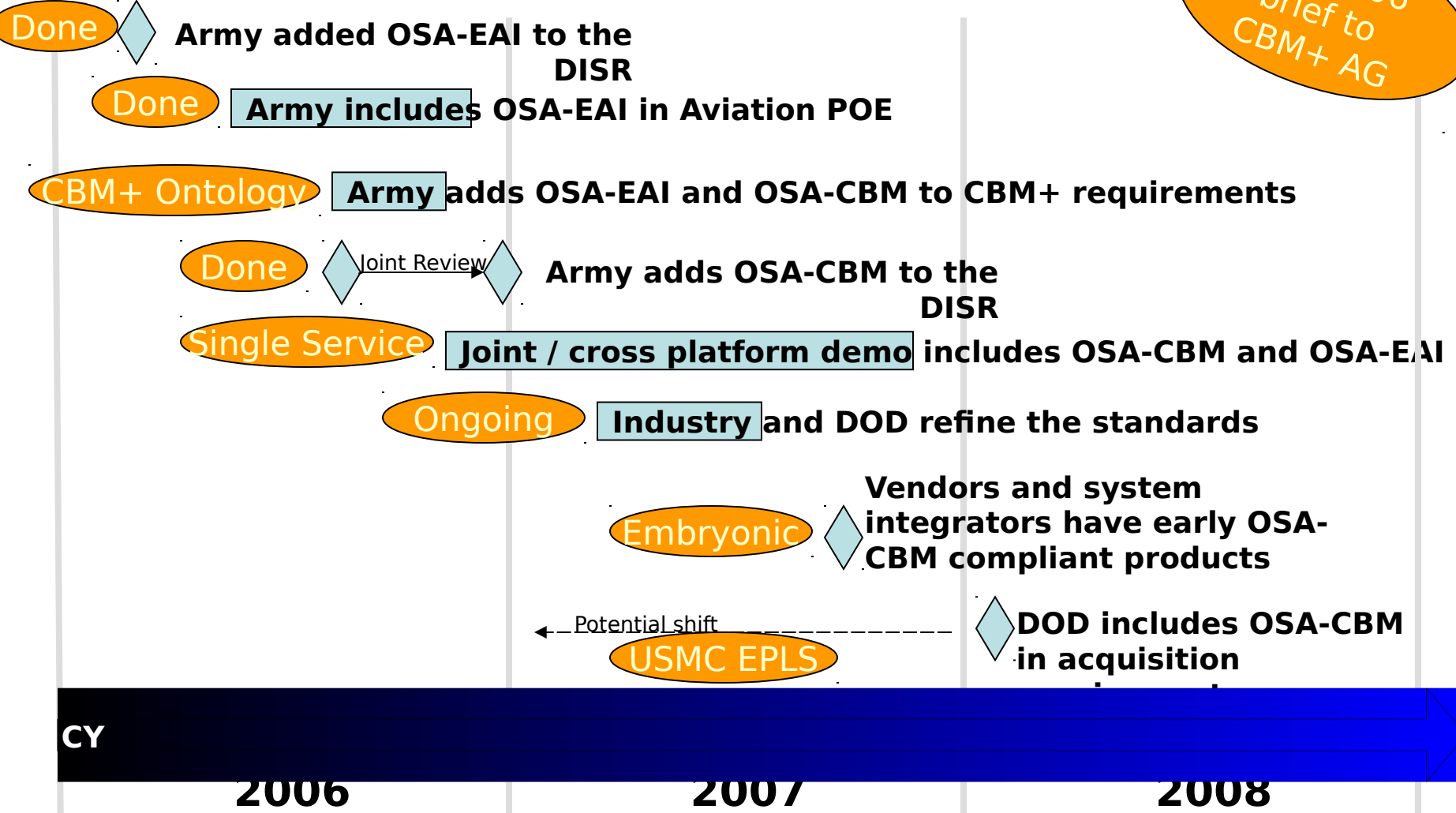
Recommendations for DOD and Industry

May 2006
brief to
CBM+ AG

- Plan now for the DOD to require OSA-CBM and OSA-EAI in the near future
- Evaluate the standards (www.mimosa.org),
 - Identify weaknesses
 - Participate in improving them
- Execute a Joint demonstration leveraging the standards
- Evaluate what products/systems should be compliant and when

The Crystal Ball

May 2006
 brief to
 CBM+ AG



MIMOSA OSA-EAI Overview

Machinery Information Management Open Standards Alliance (MIMOSA)

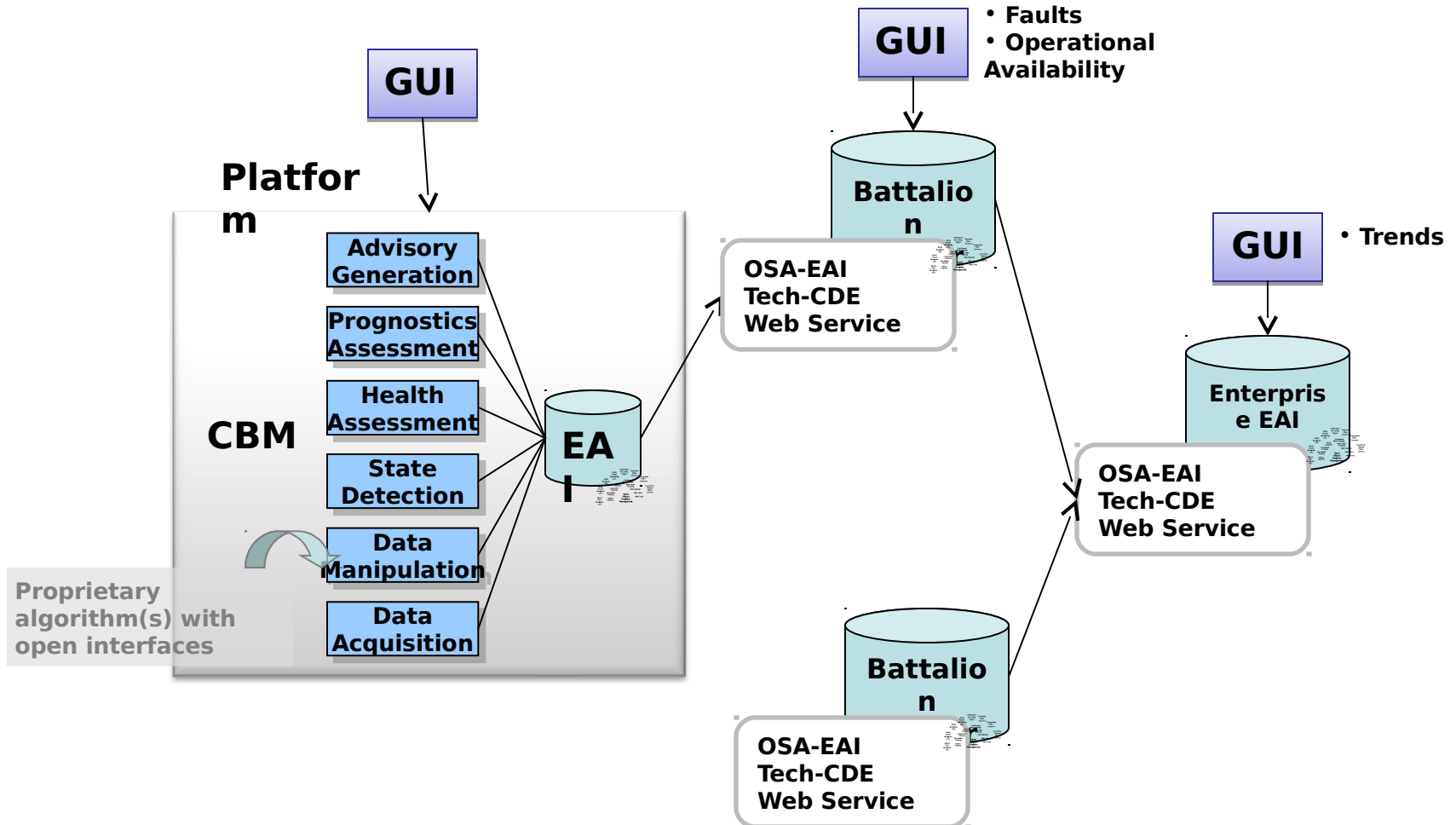
OSA-EAI database schemas and XML message schemas are all derived from the common conceptual object model (CCOM).



MIMOSA Technology Types

REG	Physical Asset Register Management
WORK	O&M Agent Work Management
DIAG	Diagnostics/Prognostics/Health
Assessment	
TREND	Operational Scalar Data & Alarms
DYN	Dynamic Vibration/Sound Data &
Alarms	
SAMPLE	Oil/Fluid/Gas/Solid Test Data & Alarms
BLOB	Binary Data/Thermography Data &
Alarms	
REL	RCM/FMECA/Model Reliability
Information	
TRACK	Physical Asset GeoSpatial Tracking
Info.	

Using OSA-EAI and OSA-CBM Together

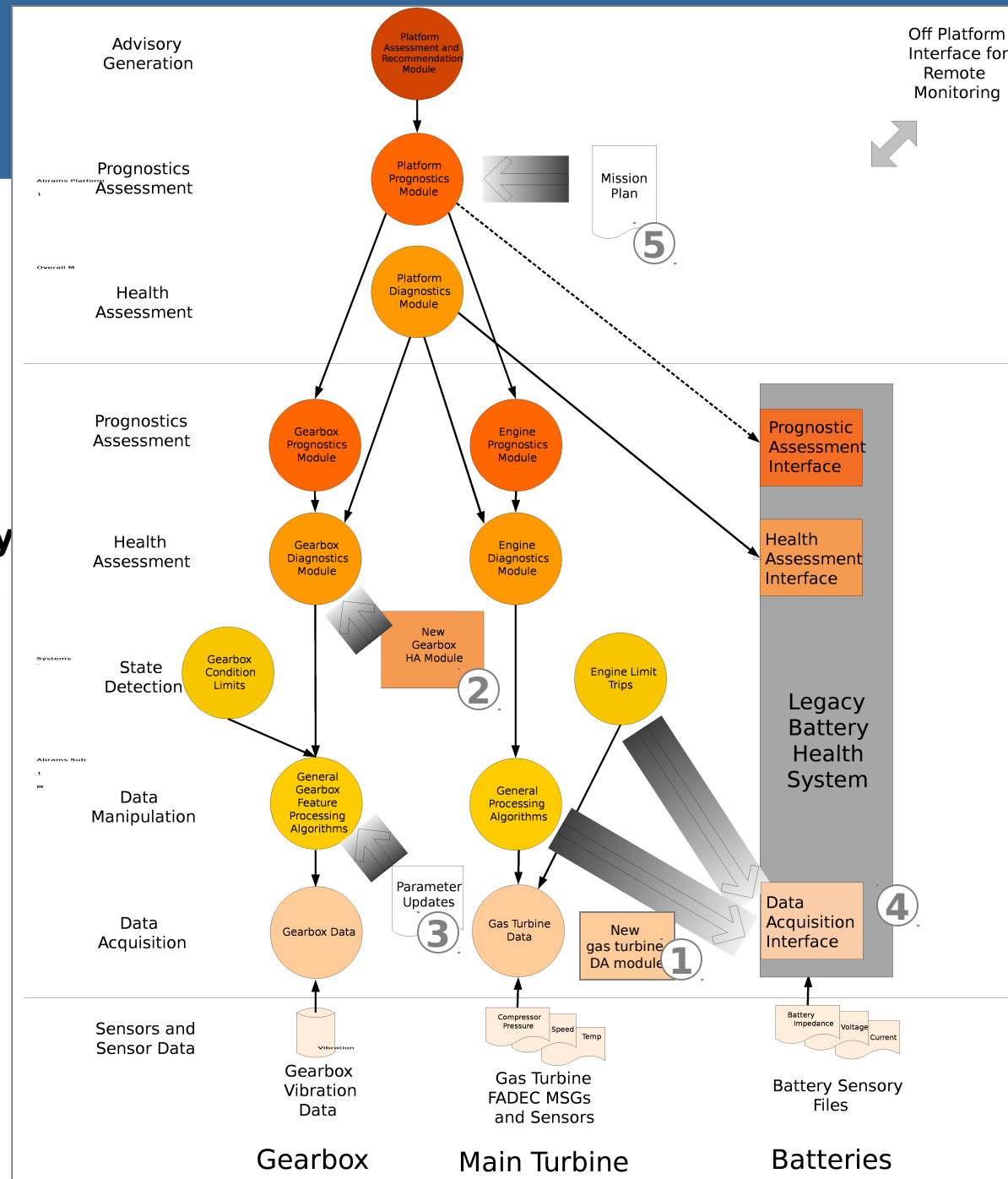


Current Demo

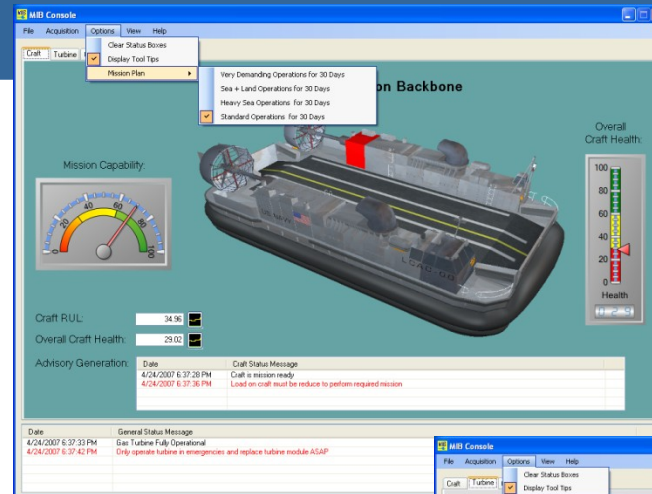
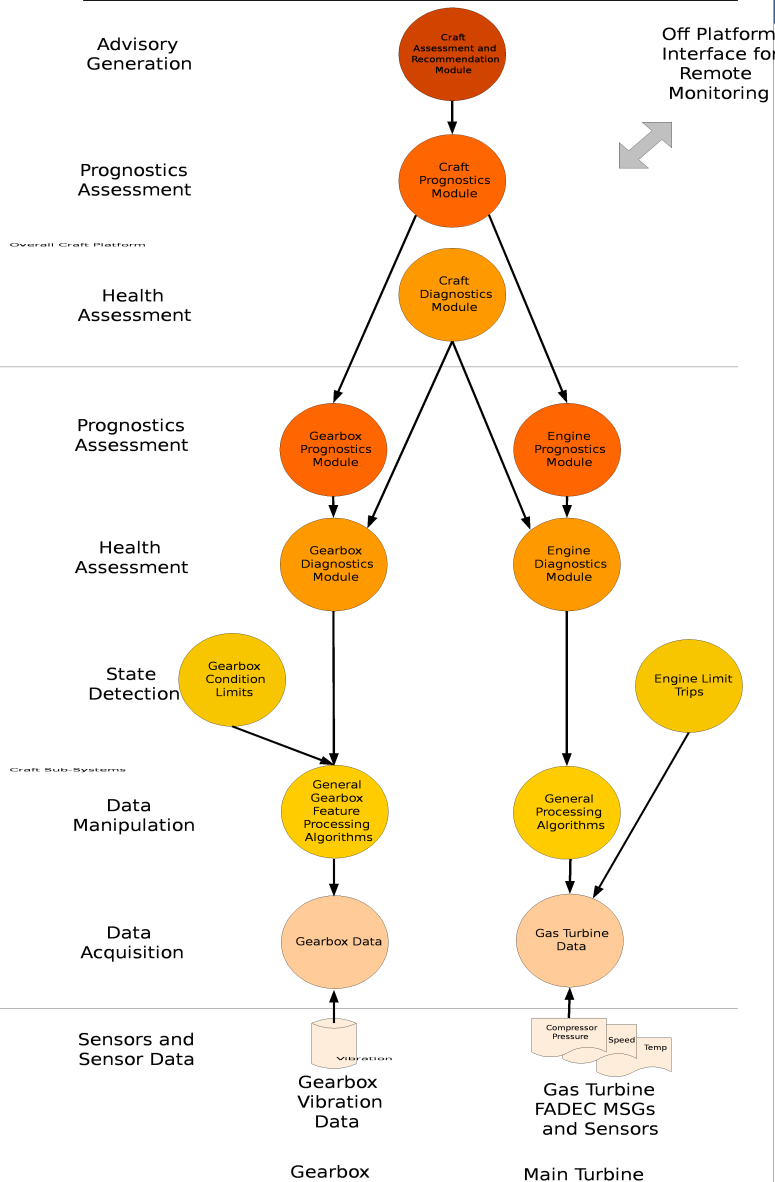
Highlights these benefits:

1. Hardware upgradeability
2. Software upgradeability
3. Dynamic parameter adjustments
4. Existing health systems updates
5. Active mission planning

Sponsored by:
US Army Logistics Innovation Agency
Dr. Miranda Keeney

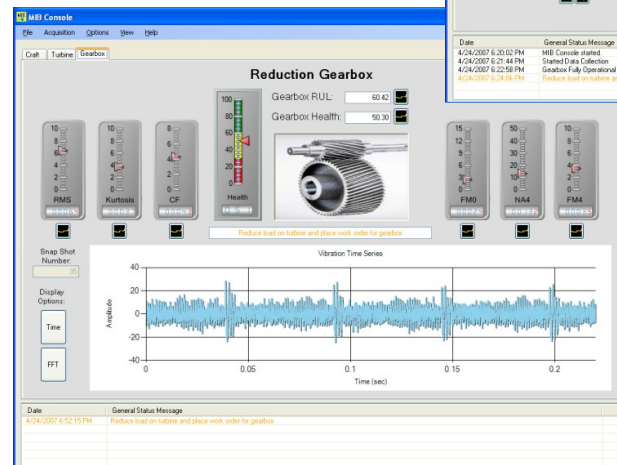


Local MIB Architecture for LCAC

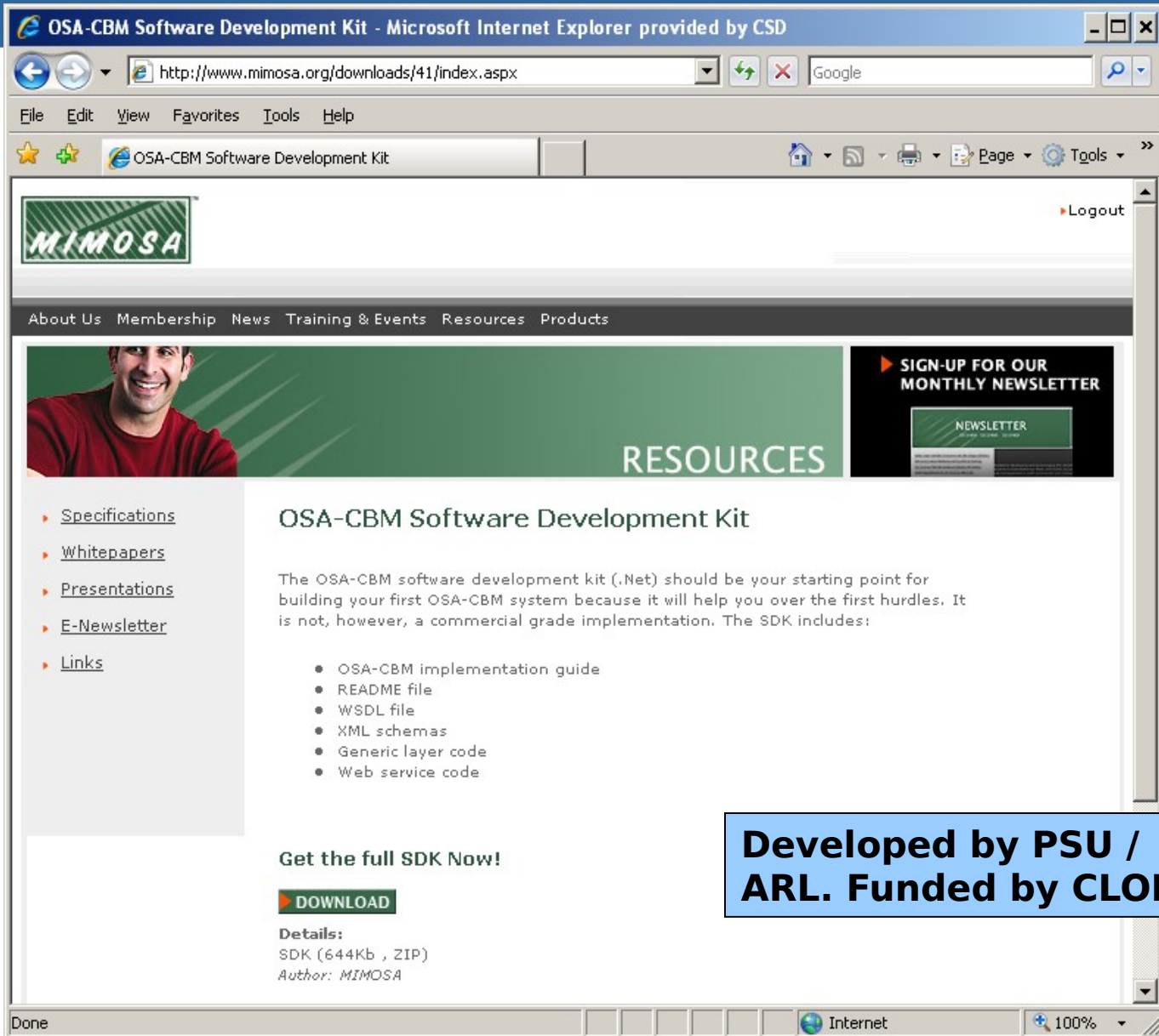


MIB Platform Interface

Gas Turbine Interface



Gearbox Interface



OSA-CBM Software Development Kit - Microsoft Internet Explorer provided by CSD

http://www.mimosa.org/downloads/41/index.aspx

File Edit View Favorites Tools Help

OSA-CBM Software Development Kit

MIMOSA Logout

About Us Membership News Training & Events Resources Products

RESOURCES

- Specifications
- Whitepapers
- Presentations
- E-Newsletter
- Links

OSA-CBM Software Development Kit

The OSA-CBM software development kit (.Net) should be your starting point for building your first OSA-CBM system because it will help you over the first hurdles. It is not, however, a commercial grade implementation. The SDK includes:

- OSA-CBM implementation guide
- README file
- WSDL file
- XML schemas
- Generic layer code
- Web service code

Get the full SDK Now!

DOWNLOAD

Details:
 SDK (644Kb , ZIP)
 Author: MIMOSA

SIGN-UP FOR OUR MONTHLY NEWSLETTER

NEWSLETTER

Done Internet 100%

**Developed by PSU /
 ARL. Funded by CLOE.**

Recommendations for DOD and Industry

Sep 2007

- Map a set of open standards to the CBM+ vision
 - for all phases of product life cycle management
- Identify gaps
 - Identify weaknesses
 - Participate in improving them
- Develop a coordinated action plan to close the gaps
- Validate the solution in coordinated pilots

The Crystal Ball

Sep 2007

OSD specifies CBM+ standards

Identify gaps and overlaps

Industry and DOD refine the standards

Joint / cross platform pilot for full life-cycle

Program managers require CBM+ stan

CY

2007

2008

2009